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## Site Summary – Building 4006

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### Site Identification:

Building 4006  
Sodium Laboratory  
Includes Building 4616, Cooling Tower  
Includes Building 4706, Substation

### Operational Use/History:

- Building 4006 was operated as a non-nuclear sodium laboratory.<sup>1,2</sup>
- Building 4006 closed for operations in 1999.<sup>3</sup>
- The septic tank was removed in 2000.<sup>3</sup>
- The leach field was removed in 2001.<sup>3</sup>
- Building 4006 is still standing but no longer in use.

### Site Description:

- Building 4006 was constructed with a steel frame and steel walls and measures 13,284 square feet, including 2,268 square feet of office space and 7,674 square feet of lab space.<sup>1</sup>
- The building had an associated cooling tower that was removed in the early 1980s in order to make room for a Power Pak associated substation.<sup>3</sup>
- Serviced by Substation 4706.

### Relevant Site Information:

- Use Authorization No. 66, dated September 28, 1973, specified that Na would be added to canisters containing  $\text{UO}_2$  in Building 4006.<sup>4</sup>
- Use Authorization No. 81, dated June 26, 1974, permitted the use of tritiated titanium foils as gas chromatograph detectors. The foils were declared excess in 1986 and removed from the building.<sup>5</sup>
- Use Authorization No. 101, originally dated April 8, 1976, permitted the handling of 0.5  $\mu\text{Ci}$  of Mn-54 contained in sections of activated piping with frozen sodium. This piping was packaged in aluminum piping; the unpacking occurred in Building 4006.<sup>6</sup>

### Radiological Surveys:

- Radiological surveys specific to the interior of Building 4006 have not been conducted.
- A radiation survey conducted on the contents of the septic tank returned removable alpha levels  $<20 \text{ dpm/cm}^2$  and removable beta levels  $<100 \text{ dpm/cm}^2$ . Total alpha and beta levels were non-detect.<sup>7</sup>

## Group O

- Soil sampling performed during excavation of the leachfield, drain lines and septic tank did not detect any contamination.<sup>7</sup>

### Status:

- Building 4006 is still standing but no longer in use.

### References:

- 1- DOE Document, N-083E-A02-DV001, Rev. A, "Site Development and Facility Utilization Planning: FY 1984-FY 1989" April 1984.
- 2- Personnel Interview, Phil Rutherford, September 4, 2003.
- 3- Personnel Interview, Dan Trippeda, September 9, 2003.
- 4- North American Rockwell, Letter, "Adding Na to Cannisters [sic] Containing UO<sub>2</sub> in the Fabrication of Lower Axial Blanket Shielding Experiment," L. M. Haba to W. F. Heine, September 24, 1973.
- 5- Rockwell International, Internal Letter, "Retirement of User Authorization No. 81," F. G. Schmidt to W. E. Nagel, June 9, 1986.
- 6- Rockwell International Internal Letter, "Use Authorization #101: Decontamination of Na Components," E. Hill to R. J. Tuttle, March 25, 1977.
- 7- DOE Internal Document, no document number, "Demolition Binder: 4006 Septic Tank."
- 8- Historical Site Photographs from Boeing Database.
- 9- SSFL Area IV, ETEC Industrial Planning Maps, 1962-1992.

**Photograph 1 – Building 4006**

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